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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/683,635	01/29/2002	Mathew Sommers	GLO 2 0079	4172
27885	7590	04/22/2004	EXAMINER	
FAY, SHARPE, FAGAN, MINNICH & MCKEE, LLP 1100 SUPERIOR AVENUE, SEVENTH FLOOR CLEVELAND, OH 44114			LEE, GUIYOUNG	
			ART UNIT	PAPER NUMBER

2875

DATE MAILED: 04/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/683,635

Applicant(s)

SOMMERS, MATHEW

Examiner

Guiyoung Lee

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 and 18-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 18-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 0603.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Receipt is acknowledged of the Notice of Appeal and Response filed 1-07-2004.
2. Applicant's arguments with regard to claims 1-10 are persuasive and, therefore, the finality of that action is withdrawn.
3. The indicated allowability of claims 11-16 and 18-26 is withdrawn in view of the newly discovered reference(s) to Katoh (USPT 5,032,960). Rejections based on the newly cited reference(s) follow.

#### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-9, 11-16, 18-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brookman (USPT 5,337,225) in view of Katoh (USPT 5,032,960).

Re claims 1, 4-9, 11-14, 16, and 18-20: Brookman discloses a border lighting strip having an electrical cable (28 in Fig. 2) including a plurality of electrical conductors, a plurality of light emitting devices (LEDs) (24) arranged alongside the electrical cable and electrically connected thereto by lead frame and crimps (26), and a sheath (34 and 36) at least partially made from a light-transmissive material (15 in Fig. 3), said sheath having a hollow region (the hollow portion around 24) adapted to receive the LEDs, and an integrally formed cylindrical lens (36) arranged to optically cooperate with the LEDs. Brookman does not disclose that the lens is an extended cylindrical lens having a length substantially coextensive with a length of the hollow tube.

However, Katoh teaches an extended cylindrical lens having a length substantially coextensive with a length of the hollow tube (34 in Fig. 5). It would have been obvious to one having ordinary skill in the art at the time of the invention to substitute Katoh's cylindrical lens with Brookman's lens in order to converge luminous flux of LED light.

Re claims 2-3: Katoh teaches that the lens is made of transparent acrylic resin (col. 5, lines 47-48).

Re claims 15 and 22: Brookman discloses that the strip is made of polymeric molding material that is flexible.

Re claim 21: Brookman discloses that the tube is formed by an extrusion molding process (col. 3, lines 15+).

Re claims 23-26: Brookman discloses a method for manufacturing a lighting strip (col. 3, lines 5-31). Brookman does not disclose that the sheath is extruded simultaneously with an integrally optical element parallel to and formed with sheath. However, Katoh teaches a method of manufacturing method including the step of integrally molding the convergent rod lens and the casing by continuous two-color extrusion (col. 3, line 45-54). It would have been obvious to one having ordinary skill in the art at the time of the invention to employ Katoh's continuous two-color extrusion molding method in order to simplify manufacturing process.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brookman and Katoh as applied to claim 1 above, and further in view of Kobayashi et al. (USPT 6,559,879 B1). The teachings of Brookman and Katoh have been discussed above.

Re claim 10: Brookman and Katoh do not disclose the light emitting diodes as set forth in the claim 10. However, Kobayashi teaches phosphide-based light emitting diodes (col. 2, lines 12-

132). It would have been obvious to one having ordinary skill in the art at the time of the invention to substitute Kobayashi's phosphide-based light emitting diodes with Brookman's LEDs in order to provide red color light.

***Response to Arguments***

7. Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection.

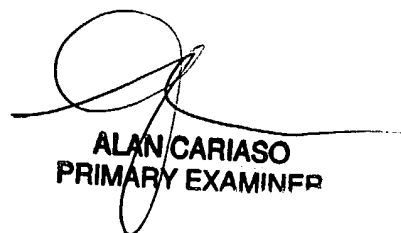
***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guiyoung Lee whose telephone number is 571-272-2374. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571-272-2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LGY

  
**ALAN CARIASO**  
**PRIMARY EXAMINER**